

Amendments to the Claims:

Claims 1-10 have been amended and new claims 11-20 have been added. A clean copy is attached

Marked-up copy

Sub C/ (Currently amended) A hand-held digital camera, comprising:
an image sensing means for sensing an image;
modification means for modifying said sensed image in accordance with
modification instructions input into said camera from an inbuilt input means; and
an output means for printing out said modified image;
wherein said modification means includes a series of processing elements arranged
around a central crossbar switch.

B/ 2. (Currently amended) A hand-held digital camera as claimed in claim 1, wherein
each of said processing elements includes an Arithmetic Logic Unit (ALU) acting under the
control of a microcode store, wherein said microcode store comprises a writeable control
store.

3. (Currently amended) A hand-held digital camera as claimed in claim 1, wherein
each of said processing elements includes an internal input and output FIFO for storing pixel
data utilized by said processing elements.

4. (Currently amended) A hand-held digital camera as claimed in claim 1, wherein
said modification means is interconnected to a read and write FIFO for reading and writing
pixel data of images to said modification means.

5. (Currently amended) A hand-held digital camera as claimed in claim 1, wherein
said processing elements are ~~arranged in~~ interconnected to form a ring and in which each
element is also separately connected to its nearest neighbours in addition to the crossbar
switch.

6. (Currently amended) A hand-held digital camera as claimed in claim 2, wherein
each of said ALUs includes a series of inputs interconnected via an internal crossbar switch
to a series of core processing units within said ALU.

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7. (Currently amended) A hand-held digital camera as claimed in claim 6, wherein each of said core processing units include at least one of a multiplier, an adder and a barrel shifter.
8. (Currently amended) A hand-held digital camera as claimed in claim 6, wherein each of ALUs includes a ~~number~~ plurality of internal registers for the storage of temporary data.
9. (Currently amended) A hand-held digital camera as claimed in claim 1, wherein said processing elements are further connected to a common data bus for the transfer of pixel data to said processing elements.
10. (Currently amended) A hand-held digital camera as claimed in claim 9, wherein said data bus is interconnected to a data cache which acts as an intermediate cache between said processing elements and a memory store for storing said images.
11. (New) A hand-held digital camera, comprising:
an image sensing means for sensing an image;
modification means for modifying said sensed image in accordance with modification instructions input into said camera from an inbuilt input means; and
an output means for printing out said modified image;
wherein said modification means includes a plurality of processing elements functionally interconnected to each other via a crossbar switch.
12. (New) A hand-held digital camera as claimed in claim 11, wherein each of said processing elements includes an Arithmetic Logic Unit (ALU) acting under the control of a microcode store, wherein said microcode store comprises a writeable control store.
13. (New) A hand-held digital camera as claimed in claim 11, wherein each of said processing elements includes an internal input and output FIFO for storing pixel data utilized by said processing elements.

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14. (New) A hand-held digital camera as claimed in claim 1, wherein said modification means is interconnected to a read and write FIFO for reading and writing pixel data of images to said modification means.
15. (New) A hand-held digital camera as claimed in claim 11, wherein said processing elements are interconnected to form a ring in which each element is separately connected to its nearest neighbours in addition to the crossbar switch.
16. (New) A hand-held digital camera as claimed in claim 12, wherein each of the ALUs includes a series of inputs interconnected via an internal crossbar switch to a series of core processing units within said ALU.
17. (New) A hand-held digital camera as claimed in claim 16, wherein said core processing units include at least one of a multiplier, an adder and a barrel shifter.
18. (New) A hand-held digital camera as claimed in claim 16, wherein each of the ALUs includes a plurality of internal registers for the storage of temporary data.
19. (New) A hand-held digital camera as claimed in claim 11, wherein said processing elements are further connected to a common data bus for the transfer of pixel data to said processing elements.
20. (New) A hand-held digital camera as claimed in claim 19, wherein said data bus is interconnected to a data cache which acts as an intermediate cache between said processing elements and a memory store for storing said images.